

the Pahsimeroi Valley with elevated blood lead levels (35.1%) were in the lowest exposure group (0.20–0.59 ppm). In the Lemhi Valley, 48.0% of the golden eagles had elevated blood lead levels and 27.5% of these had levels  $\geq 0.60$  ppm lead. Both resident and migrant golden eagles winter in the study areas; however, recapture data indicate there is little movement of eagles between the two valleys during the winter. Nestling eagles in these valleys did not have elevated blood lead levels. The source of lead contamination in Idaho eagles is not known, nor is it known if the lead contamination is confined to resident or migrant eagles. We plan to expand the study in the future in an attempt to answer these questions.

#### ELECTROCUTION AS A MORTALITY FACTOR IN AN URBAN POPULATION OF HARRIS' HAWKS

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We studied the ecology of Harris' hawks (*Parabuteo unicinctus*) nesting in an urban environment in and near Tucson, Arizona, 1990–93, and examined the role of electrocution as a mortality agent. We attempted to recover and examine the remains of all hawks that died in our study area. We used a hierarchical approach to classifying electrocutions based on field examinations, laboratory necropsies, and, in some instances, credible anecdotal and circumstantial evidence. We recorded 177 mortalities and classified them as either electrocutions (112), possible electrocutions (44) or instances in which we could not determine cause of death (21). Electrocution most commonly occurred on residential power lines and transformers and was the most common mortality factor encountered during our study. Fledglings at some nests were particularly susceptible to electrocution during the first 2 wk after fledging, possibly due to the proximity of power poles to nest trees. Among adults, females were most commonly electrocuted possibly due to larger body size and their behavioral roles in dominance interactions. Although nesting success by urban breeding groups was high, survival of fledglings was low due to electrocution. High mortality among adults in groups appeared to be offset by an abundance of floaters in urban areas that quickly replaced hawks that died. High mortality may have also kept breeding group sizes lower than was common among groups nesting in nonurban areas.

#### PRELIMINARY RAPTOR SURVEYS IN WESTERN MONGOLIA

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Raptors were observed on a 5200 km expedition from Ulaan Baatar through the Hangay Mountains to the Russian Altay Mountains with return through the Gobi Altay Mountains. The focus of the expedition was on nesting ecology of the Saker (*Falco cherrug*) and Altay falcons (*F. altaicus*) (25 eyries were located), but nests were also found for seven other species including more than 30 nests found of the upland buzzard (*Buteo hemilasius*). We conducted 21 day-long counts and 10 more formal raptor road counts. Raptors were concentrated in areas where perches were common and where food was most abundant. Western Mongolia remains a vast undeveloped land where camel trains and yak carts are normal. No developed highway network exists. Raptor work in the interior must be supported by four-wheel drive vehicles traveling cross country. Food and fuel for a research team are difficult to procure, but raptor populations are largely unexploited. Raptors frequently nest on the ground or on very low cliffs and tress, and often nest in close proximity of pairs of their own and other species. Several areas of special significance to raptors are discussed including the Taleen Ulaan (Red Steppe) areas of granite dells which we recommend for status as an international reserve.

#### POSTFLEDGING BEHAVIOR OF WESTERN SCREECH-OWLS; THE EFFECT OF DOMINANCE ON TIMING OF DISPERSAL

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Behavioral dominance may be a proximate factor related to dispersal in birds. One component of dispersal that dominance may affect is the timing of movements that juveniles make away from their natal areas. In one manner, subordinate juveniles may initiate dispersal before dominants if dominants aggressively force subordinate siblings to disperse. For example, dominant birds may chase subordinate siblings from natal areas. Conversely, if vacant territories are limited and early arriving birds are more successful in acquiring territories, selection would likely operate on young to disperse as early as possible. In this case, dominant individuals, because they have priority of access to resources and presumably mature more rapidly, would disperse before subordinate siblings. We are examining the effect of dominance, body size, and sex on dispersal in western screech-owls (*Otus kennicottii*) in southwestern Idaho using radiotelemetry to observe young during the postfledging period and as they initiate dispersal movements. To assign dominance status within broods, we videotape interactions among nestlings during the pre-fledging period which allows us to evaluate and assign social ranks based on wins and losses during agonistic interactions. Subsequently, the social ranks are examined